



CITY OF LODI

PUBLIC WORKS DEPARTMENT

COUNCIL COMMUNICATION

TO: City Council
FROM: City Manager
MEETING DATE: January 2, 1991
AGENDA TITLE: Washington Street and Acacia Street - Intersection Control

RECOMMENDED ACTION: That the City Council review the following report on Washington Street and Acacia Street and determine the appropriate action.

BACKGROUND INFORMATION: At the November 28, 1990 City Council meeting, a petition requesting installation of four-way stops at Washington and Acacia was referred to the Public Works Department. The petitioned request for this installation received from residents of the area is attached as Exhibit A.

Normally such a request received directly by staff is prioritized for future or immediate study based on accident rate and other factors. When the request is made directly to the City Council, staff would report back at a later meeting with a recommendation based on the information used to establish the priority. In this case, since we already had data due to previous complaints, the number of signatures on the petition and the fact that it is the first of many four-way stop requests that the new Councilmembers will receive, we have prepared a more detailed report with additional background material.

The installation of four-way stop signs is designed to control traffic at the intersection of streets with high volumes and near-equal volume splits, or where accidents correctable by their use can be eliminated, after trying less restrictive remedies.

Existing Conditions

Currently, Acacia Street yields at Washington Street. The prima facie speed limit on both streets is 25 mph. Approach volumes on Acacia Street and Washington Street are approximately 300 (35%) and 560 (65%) vehicles per day, respectively (Exhibit B).

Study Results

As shown on the attached Exhibit C, Caltrans guidelines for the installation of four-way stops are not satisfied at this location. The number of correctable accidents and traffic volumes are far below the required minimums.

A review of accidents on Washington Street from Watson Street to Kettleman Lane from 1987 to the present indicates that one of the nine accidents in this segment occurred at Acacia Street. This 1987 accident (left turn versus

APPROVED:


THOMAS A. PETERSON, City Manager

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thru) was not speed-related. None of the other eight accidents in this segment were identified as being caused by excessive speed.

It does not appear that the alignment offset on Acacia as it crosses Washington has been a problem.

Discussion

The submitted petition indicates that four-way stops are desired to reduce speeds on Washington Street. Studies show that the installation of stop signs has little or no effect on reducing overall speeds except at the immediate vicinity of the stop sign. In many cases, speeds will increase on segments adjacent to stop signs as drivers will attempt to 'make-up' travel time after having to stop at an unwarranted stop sign. In a similar situation, staff found that 85th percentile speeds increased by 1 to 2 mph on School Street after the installation of an unwarranted four-way stop at Vine Street (Exhibit D). In addition to the possible increase in speeds, unneeded stop signs may increase accidents (particularly rear-end accidents), waste time and energy, cause air and noise pollution, and encourage noncompliance.

Recommendation

Based on the study results and proven ineffectiveness of stop signs used for speed control, staff does not recommend the installation of four-way stop signs at this location. Increased enforcement is the most effective way to control speeds in these types of situations

Wes Suptani
FOR: Jack L. Ronsko
Public Works Director

JLR/RSK/mt

Attachments

cc: Police Chief
Street Superintendent
Assistant Civil Engineer-Traffic
Concerned Citizens

Petition for a Four Way Stop Sign

Kenny Krenz 334-4456

Resident of Washington Street

Like to have ^{4 way} a stop sign on the

corner of ~~the~~ Washington St & ~~Reia~~ ^{Reia} St

Do to the car go to fast on Washington

and slow at Reia St. There are a lots of

Kids on the corner, of Reia and Washington

St. We want a stop at the four corner so

are kids won't get, hit or kill by a car

going to fast.

Thank you

from the resident
of Washington St

Reia St.

Petition For A Four Way Stop Sign.

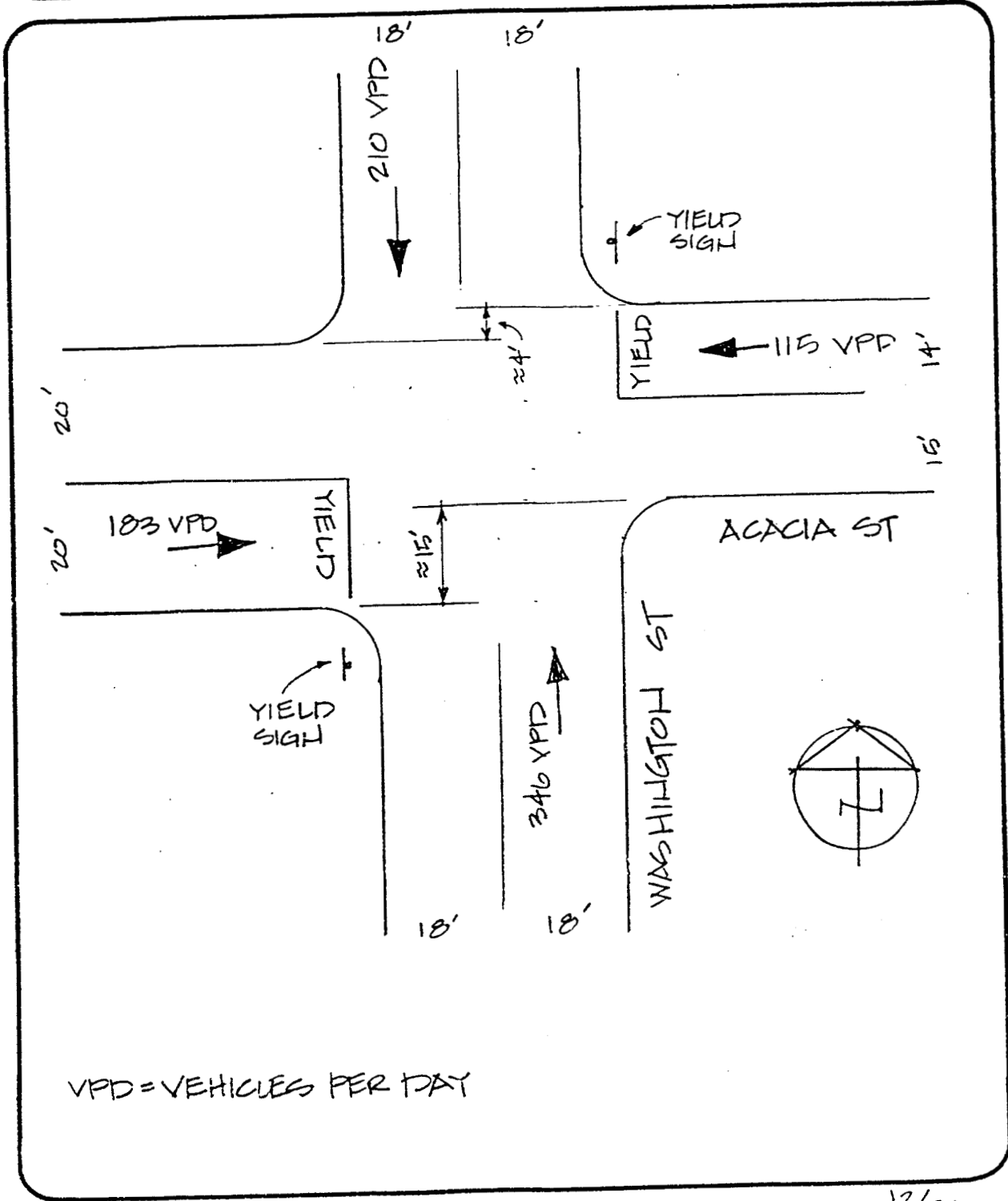
Name	Address	Date
1. Kenny Krenz		10-31-90
2. Lucy Luza	1245 So Washington St	10/31/90
3. Marie Carmichael	1301 S. Washington	10/31/90
4. Frances Miller	255 Charles St.	10/31/90
5. Edwin Larson	1321 So. Washing	10/31/90
6. J. Bryan Price	1312 So Washington	10/31/90
7. R. Locken	1300 S. Washington	10-31-90
8. David Cantu	1300 S. Washington	10/31/90
9. Steve Foust	1300 S. Washington	10/31/90
10. James Harkey	320 Acacia	10/31/90
11. Cindy Armstrong	322 Acacia St.	10/31/90
12. Billy Worthy	321 Acacia St	10/31/90
13. Wm. Worthy	321 Acacia St	10/31/90
14. Mrs. Irene Koderker	317 Acacia St.	10/31/90
15. Mr. Koderker	317 Acacia St.	10-31-90
16. Pat S Neal	315 Acacia St.	10/31/90
17. Lorraine Kolt	303 Acacia	10-31-90
18. Lorraine Kolt	303 ACACIA	10-31-90
19. STEVEN WAGNER	301 acacia	10-31-90
20. Teresa Targoff	300 Cypress St	10-31-90
21. Richard Young	303 CYPRESS	10-31-90
22. John James	1247 S Washington	10-31-90
23. Andy Clark		
24. Lillian Jay	1201 S Washington	10-31-90
25. Bertha Huber	1003 S. Wash	10-31-90

Name	Address	Date
Frank Taormina	1209 S. Washington	10-31-90
Harriet Bolzvine	1215 S. Washington	10-31-90
Cathy Scherr	1227 S. Washington	10-31-90
Kay Sherman	1233 S. Washington	10-31-90



CITY OF LODI
PUBLIC WORKS DEPARTMENT

ACACIA ST / WASHINGTON ST
EXISTING CONDITIONS



12/90

Exhibit C



CITY OF LODI

PUBLIC WORKS DEPARTMENT

MULTI-WAY STOP SIGN
WARRANTS
 INTERSECTION OF ACACIA STREET and WASHINGTON STREET
 DATE 12-12-90 BY RSK

Any of the following conditions may warrant a multi-way STOP sign installation.

1. Where traffic signals are warranted and the need is urgent, the four-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the signal installation.

 Satisfied _____ Not Satisfied ☒

2. An accident problem, as indicated by five or more reported accidents of a type susceptible of correction by a multi-way stop installation in a 12-month period. Types of accidents susceptible of correction include right angle and left turn collisions.

 Time period 1989 Number of correctible accidents 0
 Total number of accidents 0 Satisfied _____ Not Satisfied ☒

3. Minimum volume warrant:

- a. The total vehicular volume entering the intersection from all approaches must average at least 500 vehicles per hour for any eight hours of an average day, and

Hour	7-10	11-12	1-2	3-4	5-6	7-8	9-10	11-12
Major Street	52	33	40	56	59	30	32	33
Minor Street	10	17	17	32	19	12	17	7

 Highest 8 hours _____ a.m. to _____ p.m.
 Total volume 640 vehicles
 Average per hour 80 vehicles

- b. The combined vehicular and pedestrian volume from the minor street or highway must average at least 200 units per hour for the same eight hours with an average delay to minor street vehicular traffic of at least 30 seconds per vehicle during the maximum hour.

Hour	7-10	11-12	1-2	3-4	5-6	7-8	9-10	11-12
Minor Street Vehicles	10	17	17	32	19	12	17	7
Pedestrians								

 Highest 8 hours _____ a.m. to _____ p.m.
 Average per hour 121 vehicles
 Average per hour _____ pedestrians (EST)
 Average units per hour _____
 Satisfied _____ Not Satisfied ☒

1,469 PERS REQ'D

4. When the 85-percentile approach speed of the major street traffic exceeds 40 miles per hour, the minimum vehicular volume warrant is 70 percent of the above requirements.

 85-percentile speed < 40 MPH
 Satisfied _____ Not Satisfied ☒

A four-way STOP sign installation is a useful traffic control measure when other available means of control are not adequate. It should not be used unless the volume of traffic on the intersecting roads is about equal and is undesirable at low volume intersections.

 % Traffic major street 65 : 556 VPD
 % Traffic minor street 35 : 298 VPD



CITY OF LODI

PUBLIC WORKS DEPARTMENT

Exhibit D

COUNCIL COMMUNICATION

TO: City Council
FROM: City Manager
MEETING DATE: April 20, 1988
AGENDA TITLE: Traffic Studies - Discussion and Appropriate Action
c) School Street at Vine Street, Before and After Study

RECOMMENDED ACTION: None. Information only.

BACKGROUND INFORMATION: In September 1987, City Council received a petition from a School Street neighborhood regarding speed problems on School Street near Vine Street. City Council directed staff to perform a traffic study on School Street. Staff's study included 24-hour vehicle counts, radar speed surveys, a four-way stop control study, and an accident review at School Street and Vine Street. The requested four-way stop at School Street and Vine Street did not meet the warrants. Staff's study concluded the primary solution to speed problems is enforcement and suggested the Police Department continue enforcement on School Street.

The City Council voted to install four-way stop signs at School Street and Vine Street. Staff indicated to the City Council that there were studies that showed installing stop signs may actually increase speed. At the request of the City Council, staff sent the Council the attached memo dated November 9, 1987 transmitting the studies and stop sign installation versus speed.

Under the November 9, 1987 memo, the Public Works Department shared with the Council that we would be performing a "before" and "after" speed study on School Street. Radar surveys were performed in October 1987, one day before four-way stop signs were installed. These results were compared with recent radar surveys. The Public Works Department recently performed a radar study on the same day of the week and in the same time frame as the work done last October. The 85th percentile speed increased by 1-2 mph after the installation of stop signs. The following table presents the radar speed results:

Direction	School Street			
	N/Vine Street		S/Vine Street	
	Before	After	Before	After
NB	32	33	33	35
SB	32	34	36	37

APPROVED:

THOMAS A. PETERSON, City Manager

FILE NO.

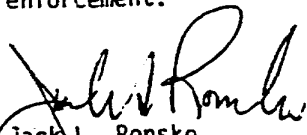
CTRAFF13/TXTW.02M

April 13, 1988

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The traffic volumes on School Street have decreased. In September, the daily traffic volume on School Street north of Vine Street was 1,910 vehicles per day. A recent count of 1,690 vehicles per day was taken at the same location. Staff feels this could be due to seasonal variation or vehicles have re-routed to other streets due to the inconvenience of stop signs.

The Council should be aware that stop signs do not necessarily reduce speed. If City Council desires to reduce speeds on School Street, consideration should be given to removing the School Street stop signs and increasing enforcement.



Jack L. Ronsko
Public Works Director

JLR/PJF/ma

Attachments

cc: Street Superintendent
Police Chief
Richard Mullins

MEMORANDUM, City of Lodi, Public Works Department

TO: City Manager
City Council

FROM: Public Works Director

DATE: November 9, 1987

SUBJECT: Studies Related to Unwarranted Stop Sign Installations

At the request of the City Council at the October 21, 1987 meeting, we are providing the following attachments:

1. Automobile Club study showing that unneeded stop signs have a major affect on the traveling public in the area of wasted hours, dollars, gasoline, and safety.
2. City of El Monte study showing that stop signs have a questionable value as a speed control measure and that their unwarranted installation has a financial impact on the motoring public.
3. City of La Mirada study showing that vehicle speeds do not change after the installation of regulatory speed signs, nor after the installation of stop signs. Stop signs only slow traffic at the stop sign location and vehicles are back to normal speed within a few hundred feet from the stop sign. Stop signs do not reduce mid-block vehicle speeds. In fact, it was found that vehicle speeds actually increased slightly.
4. Article from Traffic Engineering magazine entitled "Stop Signs for Speed Control?". This study points out that the Manual on Uniform Traffic Control Devices for Streets and Highways clearly states that stop signs should not be installed for speed control. This study also shows that the difference in average speeds is not significant after installation of stop signs, but speeds do increase slightly. It also indicated that unwarranted stop signs installed for speed control are generally disregarded by approximately one-half of the motorists (i.e., making only a rolling stop).
5. Publication of the Western District Institute of Transportation Engineers entitled "Lee Street; A Twelve-Year Case History of Residential Street Traffic Management Problems". This study indicated that for unwarranted stop signs, only 14.5% of the drivers came to a complete stop. The study showed there is little effect on vehicle speed other than in the immediate vicinity of the stop sign controls. It also pointed out that the installation of stop signs had no effect on intersection accidents. The final action of the Lakewood, Colorado City Council was to remove all the unwarranted stop signs.

City Manager, et al.
November 9, 1987
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Prior to the installation of the stop signs at School and Vine Streets, I directed the Traffic Engineering personnel to do additional radar speed studies north and south of the new stop sign installation. In three to four months, we will bring back to the City Council the School Street before and after traffic data results.

The Public Works staff feels that additional emphasis should be placed on effects on the motoring public when stop signs are installed. Unwarranted stop signs waste time and energy, cause air and noise pollution, and most importantly, encourage noncompliance. This increases the hazard to pedestrians, bicyclists, and the motoring public. In addition, it is felt that this noncompliance can be habit-forming and increase the City-wide safety problem rather than decrease it.


Jack L. Ronsko
Public Works Director

JLR/ma

Attachments

cc: City Attorney
Police Chief

bcc: Public Works Director
Lodi News Sentinel

RESOLUTION NO. 91-7

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A RESOLUTION OF THE LODI CITY COUNCIL
APPROVING THE CONVERSION OF "YIELD" SIGNS TO "STOP" SIGNS AT THE
INTERSECTION OF WASHINGTON STREET AND ACACIA STREET, AND THEREBY
AMENDING TRAFFIC RESOLUTION NO. 87-163

=====

RESOLVED, that the City Council of the City of Lodi does hereby
approve the conversion of "yield" signs to "stop" signs at the
intersection of Washington Street and Acacia Street, as shown on
Exhibit A attached; and

FURTHER RESOLVED, that City of Lodi Traffic Resolution 87-163,
Section 2C "Stop Intersections" and Section 2D "Yield Intersections" is
hereby amended by designating the conversion of "yield" signs to "stop
signs" at the intersection of Washington Street and Acacia Street.

Dated: January 2, 1991


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I hereby certify that Resolution No. 91-7 was passed and adopted
by the Lodi City Council in a regular meeting held January 2, 1991 by
the following vote:

Ayes: Council Members - Pennino, Pinkerton, Sieglock, Snider
and Hinchman (Mayor)

Noes: Council Members - None

Absent: Council Members - None


Alice M. Reimche
City Clerk

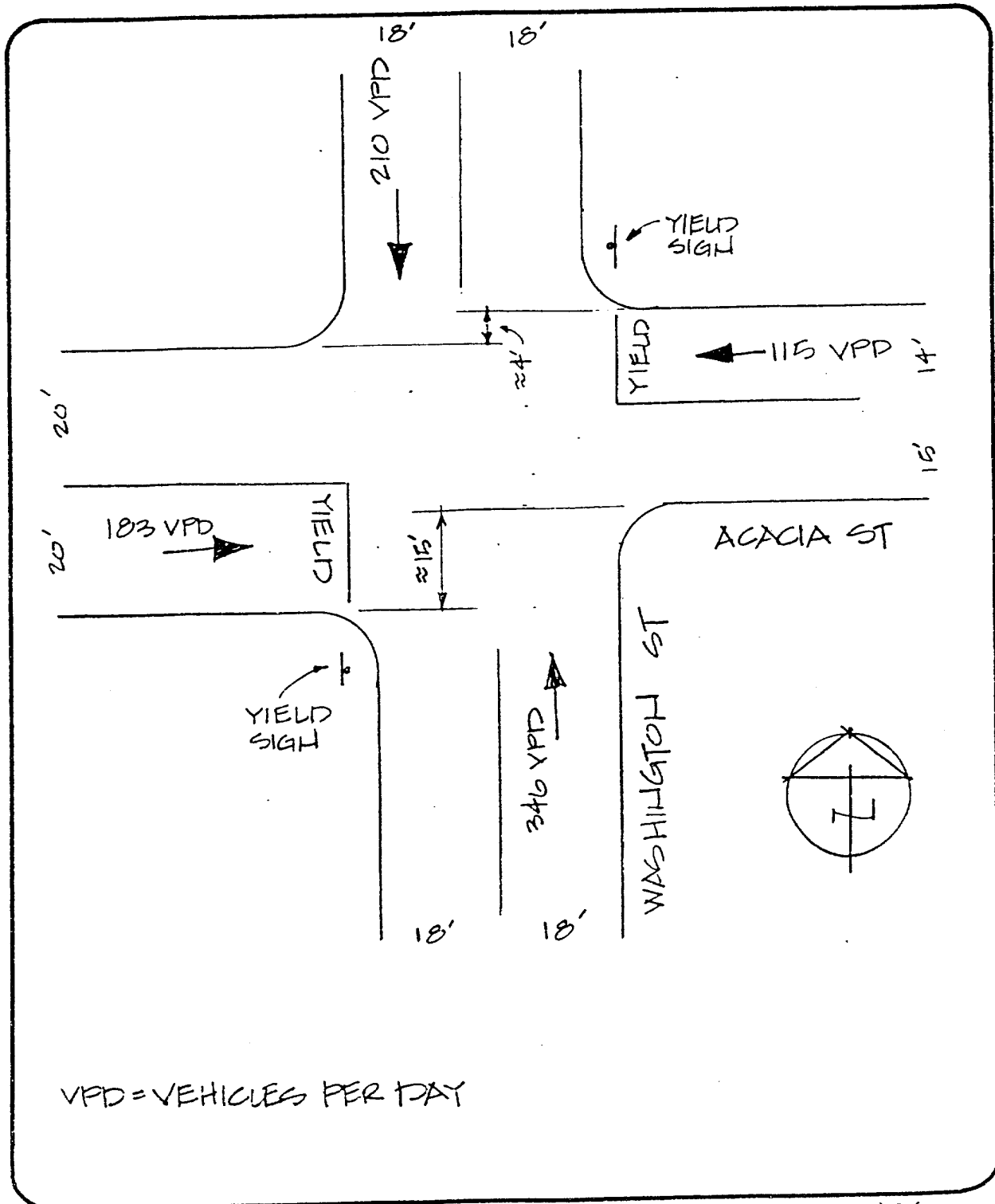


CITY OF LODI

PUBLIC WORKS DEPARTMENT

Exhibit A

ACACIA ST, WASHINGTON ST
EXISTING CONDITIONS



VPD = VEHICLES PER DAY

12/90

CITY COUNCIL

DAVID M. HINCHMAN, Mayor
JAMES W. PINKERTON, Jr.
Mayor Pro Tempore
PHILLIP A. PENNING
JACK A. SIEGLOCK
JOHN R. (Randy) SNIDER

CITY OF LODI

CITY HALL, 221 WEST PINE STREET
P.O. BOX 3006
LODI, CALIFORNIA 95241-1910
(209) 334-5634
FAX (209) 333-6795
December 27, 1990

THOMAS A. PETERSON
City Manager
ALICE M. REIMCHE
City Clerk
BOB McNATT
City Attorney

SUBJECT: Washington Street and Acacia Street - Intersection Control

Dear Property Owner/Resident:

Enclosed is a copy of background information on an item that will be discussed at the City Council meeting on Wednesday, January 2, 1991, at 7:30 p.m. The meeting will be held in the City Council Chamber, Carnegie Forum, 305 West Pine Street. You are welcome to attend.

If you wish to communicate with the City Council, please contact Alice Reimche, City Clerk, at (209) 333-6702.

If you have any questions about the item, please call Richard Prima or me at (209) 333-6706.

H. Fujitani
FOR: Jack L. Ronsko
Public Works Director

JLR/mt

Enclosure

cc: City Clerk

LWASHIN2/TXTW.02M